UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 7,424,856 B2

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DATED

APPLICATION NO.: 10/525565

INVENTOR(S)

: September 16, 2008 : Werner Brennwald et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

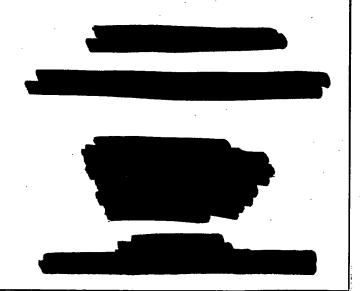
The title page should be deleted to appear as per attached title page.

The sheets of drawings consisting of figures 1-13 should be deleted to appear as per attached figures 1-13.

PLEASE INSERT DRAWING SHEET LABELS AS SHOWN ON ATTACHED PAGES

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This certificate supersedes certificate of correction issued November 25,2008.



(12) United States Patent Brennwald et al.

(10) Patent No.:

US 7.424.856 B2

(45) Date of Patent:

Sep. 16, 2008

GRATE ELEMENT FOR A GRATE OF A
WASTE COMBUSTION INSTALLATION

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Weber, Netstal (CH)

(73) Assignee: Von Roll Umwelttechnik AG (CH)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 397 days.

(21) Appl. No.: 10/525,565

(22) PCT Piled: Aug. 22, 2003

(86) PCT No.: PCT/EP03/09323

§ 371 (c)(1),

(2), (4) Date: Feb. 25, 2005

(87) PCT Pub. No.: WO2094/025181

PCT Pub. Date: Mar. 25, 2004

(65)**Prior Publication Data**

> US 2005/0257723 A1 Nov. 24, 2005

(30)Foreign Application Priority Data

(51) Int. Cl.

(2006.01) F23H 7/08

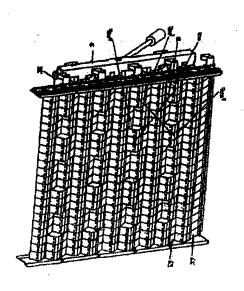
(58) Field of Classification Search 110/281, 110/257, 258, 267, 268, 282, 283, 284, 289,

110/290, 291, 296

See application file for complete search history.

arranged in each row of grate blocks. A first number of grate blocks arranged in a moveable row of grate blocks here is assigned to a first grate carriage (5), and a second number of grate blocks arranged in a moveable row of grate blocks is assigned to a second grate carriage (35), it being possible for

3 Cisims, 7 Drawing Sheets



(56)References Cited

U.S. PATENT DOCUMENTS

4,170,183 A 10/1979 Cross

FORBIGN PATENT DOCUMENTS

CH 585 372 2/1977 DE 525 221 5/1931 DE 1 099 117 2/1961 1001218 BI 5/2000 10/1975 2 263 041

OTHER PUBLICATIONS

Max Künzli, W + E-Gegenlauf Überechubrost, p. 1-17.

* cited by examiner

Primary Examiner-Kenneth B Rinchart (74) Attorney, Agent, or Firm-Hershkovitz & Associates, LLC: Abe Hershkovitz

(57) **ABSTRACT**

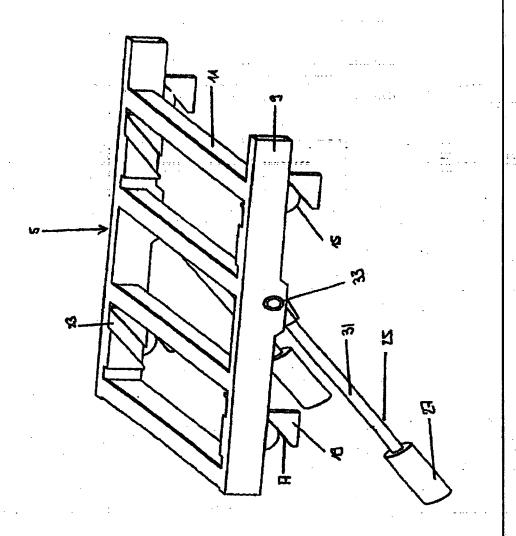
The present invention relates to a grate element (1) for a grate of a waste-incineration plant, having a plurality of rows of grate blocks, which are moveable or fixed, arranged one behind the other, a plurality of grate blocks (67) being the first number of grate blocks to be moved independently of the second number of grate blocks.

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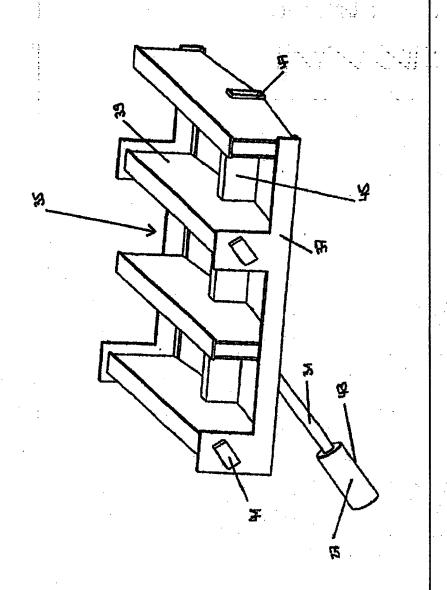
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FIG.2

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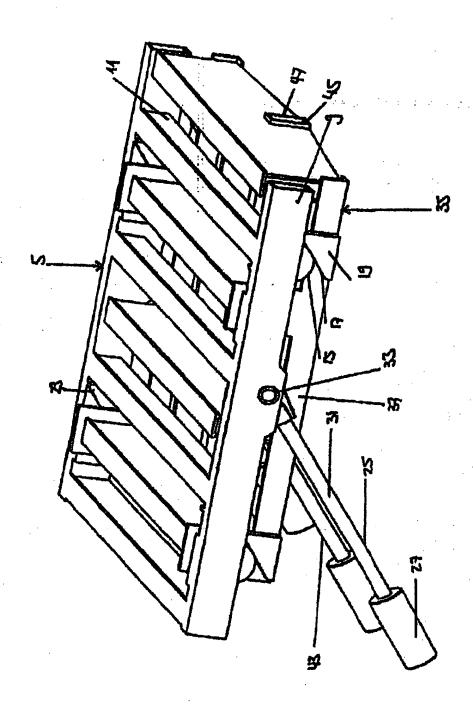
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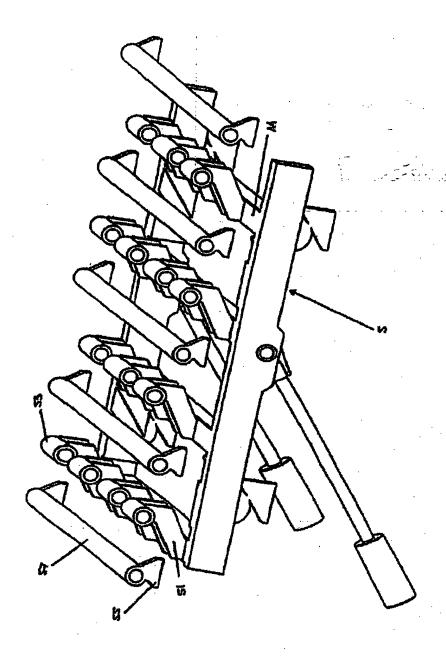


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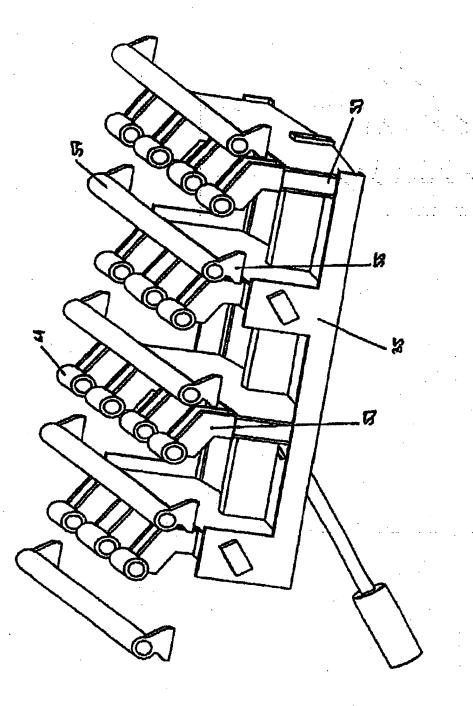


FIG. 6

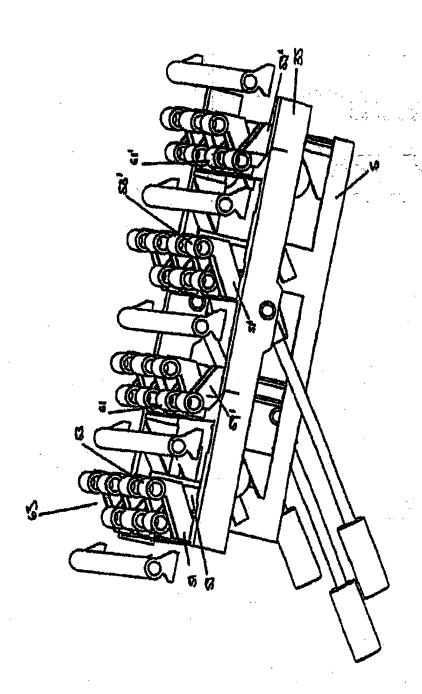
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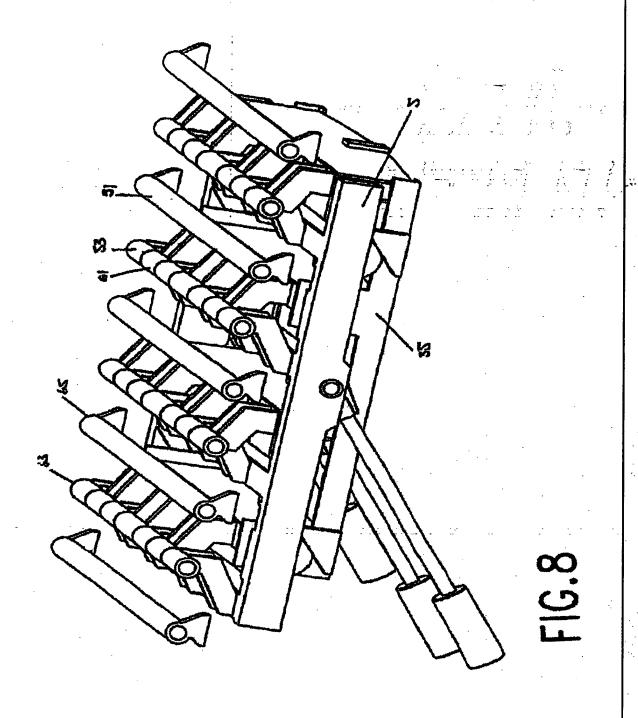
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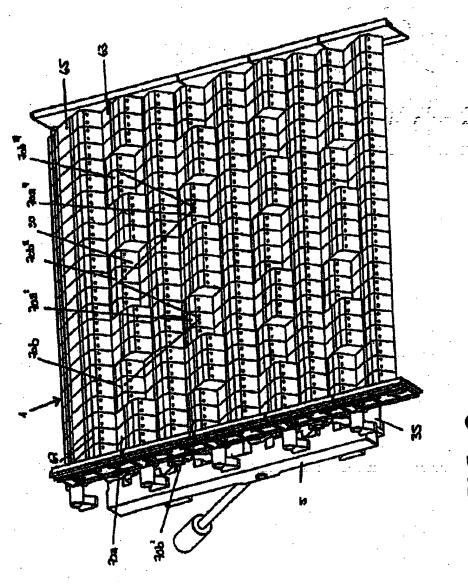


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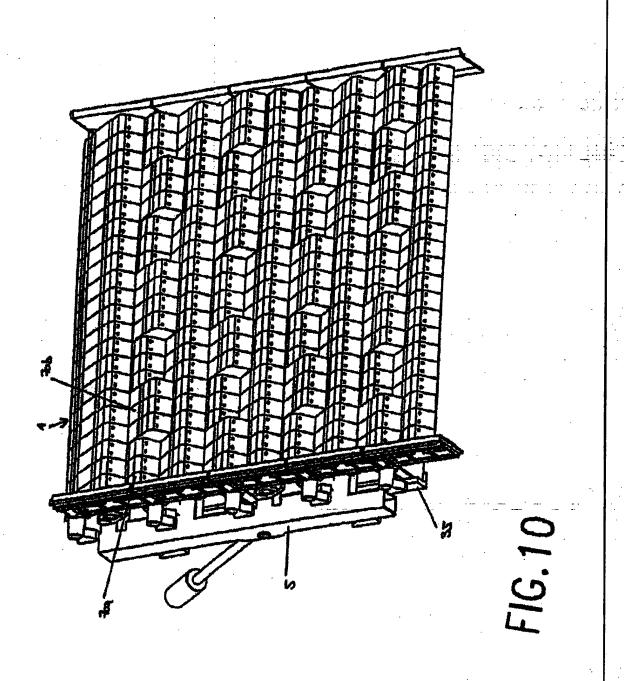
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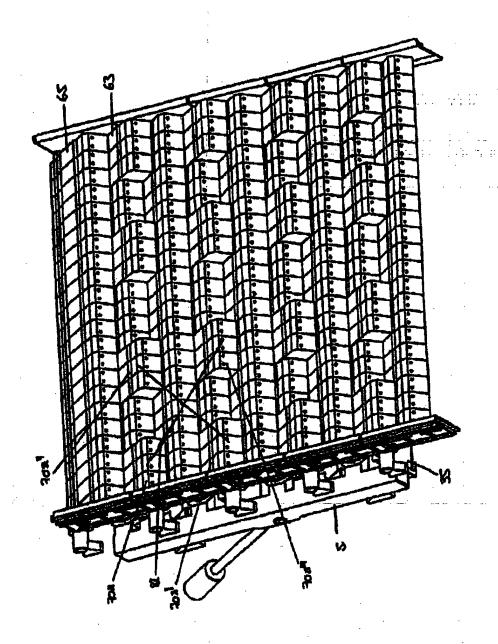


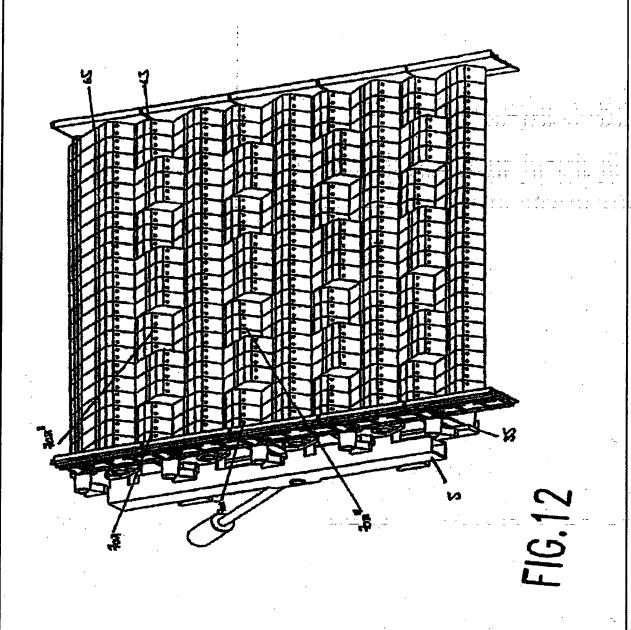
FIG. 1

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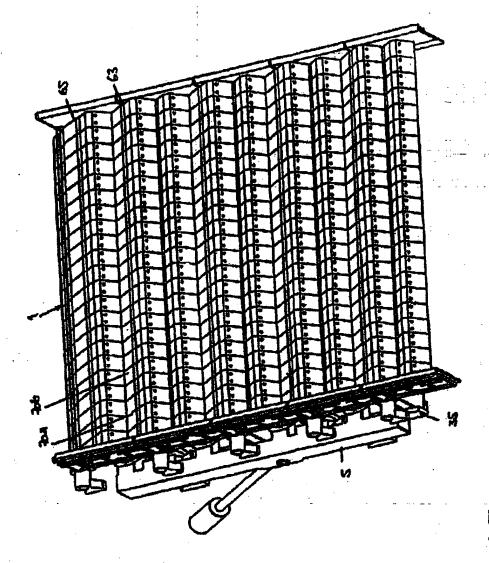


FIG. 1